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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,991	10/04/2001	Kyu-Nam Lim	AB-984-1C US	5338

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06/04/2002

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EXAMINER

NGUYEN, LINH M

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 06/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/971,991

Applicant(s)

LIM, KYU-NAM

Examiner

Linh M. Nguyen

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10 and 12 is/are rejected.
- 7) ☒ Claim(s) 7 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

This is a response to amendment filed 4/10/2002.

Note that all responses to this application should be indicated with Serial No. 09/971991 instead of 09/574,306.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Talaga, Jr. (U.S. Patent No. 5,942,921).

With respect to claims 1 and 12, Talaga, Jr. discloses, in Figure 4, a peak amplitude comparator and a corresponding method comprising: a) an input circuit [406, 408, 410] having an input terminal coupled to receive an input signal [VIN], for generating at an output terminal a first signal with an amplitude that is substantially equal to a peak amplitude of the input signal minus a predetermined voltage drop; b) a reference circuit [402, 404, 410] having an input terminal coupled to receive a reference voltage for generating at an output terminal a second signal with an amplitude that is substantially equal to the reference voltage minus the predetermined voltage drop; and c) a comparator [202] having a first terminal coupled to receive the first signal and a second terminal coupled to receive the second signal.

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With respect to claim 2, Talaga, Jr. discloses, in Figure 4, that the comparator is configured to compare a magnitude of the first signal in a magnitude of the second signal.

With respect to claim 3, Talaga, Jr. discloses, in Figure 4, that the predetermined voltage drop is substantially equal to a transistor threshold voltage.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talaga, Jr. (U.S. Patent No. 5,942,921), in view of Applicant Admitted Prior Art (AAPA).

With respect to claims 4 and 13-14, Talaga, Jr. discloses all of the claimed limitations as expressly recited in claim 1 except for a capacitor coupled to the second source/drain terminal of the first transistor. AAPA Fig. 1 discloses a capacitor [C1] connected to a second source/drain of transistor M1. To configure a capacitor to the second source/drain of the first transistor of Talaga, Jr.'s circuit for storing would have been obvious to one of ordinary skill in the art at the time of the invention since such a configuration of the capacitor for charging, discharging and maintaining the charge as evidenced by AAPA Fig. 1.

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With respect to claim 5, Talaga, Jr. discloses, in Figure 4, that the reference circuit comprises: 1) a second transistor [402] having a gate terminal coupled to receive the reference signal [VREF], a first source/drain terminal coupled to the logic high power supply [VCC] and 2) a second source/drain terminal coupled to the output terminal of the reference circuit; and a current source [410] coupled to the second source/drain terminal of the second transistor.

Allowable Subject Matter

Claims 9-11 are allowed.

Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior art of record does not show or fairly suggest an input circuit having first and second input terminals coupled to respectively receive differential first and second input signals, and configured to generate at an output terminal a first signal with an amplitude that is substantially equal to a peak amplitude of either of the first and second input signals minus a predetermined voltage drop, as called for in claims 6 and 9.

Remarks and Conclusion

Applicant's arguments filed 4/10/2002 have been fully considered but they are not persuasive.

With respect to Applicant's argument on page 5, last paragraph, Applicant argues that Pryor fails to teach a self bias signal. The Examiner disagrees since Pryor, in Fig. 1, teaches that an output terminal [12] is an output of the inverter [10] and also is an input

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to node 51, which would be considered as a self bias signal for the inverters [P5,N5 and P6,N6] in block [50] by an artisan in the art. Applicant also stated that Pryor fails to teach a first inverting switch connected to a first input voltage and outputting a self bias signal, and a gain control unit having a feedback loop for gain control and responding to the self bias signal and the output signal. As shown in Fig. 1, Pryor clearly teaches a first input voltage and outputting a self bias signal (as stated above), and a gain control unit [50] having a feedback loop [22-52 path] for gain control and responding to the self bias signal and the output signal [22]. As such, the rejections of claims 1,4,8, and 12 still stand.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh M. Nguyen whose telephone number is (703) 305-

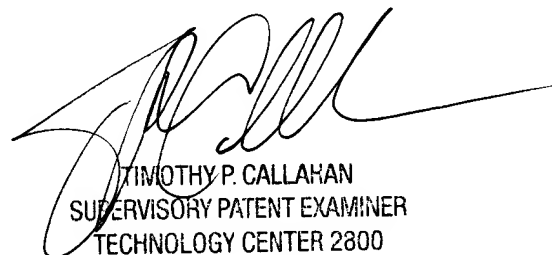
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9414. The examiner can normally be reached on Alternate Mon, Tuesday - Friday from 7:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (703) 308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Linh M. Nguyen



TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800